DECEMBER 2017 DPE SEMI-ANNUAL REPORT – POTENTIAL ADDITIONAL CHLOROPRENE EMISSIONS REDUCTIONS

#	Potential Project	Description	Additional Information or Status
1	Poly Kettle Strainers and Washing System	Neoprene production requires strainers to remove unwanted coagulum and solids generated during the polymerization reaction in the 5 kettles in the Poly area. CD emissions are generated when the strainers are cleaned and when kettles have to be opened to remove (skim) solids that generally float on the surface of the emulsion. DPE is considering installing new strainers and potentially including a washing system with these. The wash would aim to reduce the amount of CD in the coagulum. The plan includes transporting the CD laden wash water from this operation to the proposed Aeration Tank (see below). This project is also covered by the work under AOC I.E.	A prototype new kettle drop valve and new strainer were installed on kettle #3 during the May 2017 Spring TAR. This strainer included the wash system for testing of this step. Performance of this test unit was deemed to be positive and the decision was made to install the strainer, water flush and new type kettle drop valve in the remaining 4 kettles during the 2017 Fall shutdown. All 5 kettles are now equipped with this system that supports our emission reduction program. While these systems have only been in operation for less than a month, to date the site has experienced significant reduction in the frequency of the skimming operation and a reduced volume of coagulant accumulated in the strainers. These systems will be tied to the Aeration Tank and the overhead CD laden gas stream from this unit will be routed to the RTO.
2	Finishing Wash Belt (1700-25 & 26) Variable Frequency Drives	DPE has had internal discussions to install variable frequency drives on the wash belts in Lines 1 and 2 in Finishing. This move would reduce the rate of emissions from these units to a level low enough where they could be routed to the RTO unit. The VFD's would potentially reduce the total flow rate of the gas by 75% in each line. CD emission from 1700-25&26 (2014) = 4.78 US t/y	The Variable Frequency Drives (VFDs) have been installed in both wash belt fans in Finishing. In 2018 DPE plans to test reducing the speed of these fans to a speed that will optimize the emission generation vs. the proper operation of the wash belt, taking into account also the potential occupational health hazards in the Finishing building. No design work has been started yet.
3	Aeration Tank	Wastewater from the stripping operation in the Poly Building is currently routed to the Surge Tank and is a source (emission	The AT has been constructed and is installed outside of the Poly Building. The AT will be put in service as part

		point 4-95 in the permit) of 2.1 US t/y of CD emissions (2014 basis). DPE has discussed routing this stream to a new Aeration Tank (AT). The CD in the wastewater would be stripped out in the AT and the gases generated would be routed to the RTO. Additionally the water used to wash the Poly building strainers could be routed to the AT. The AT would recover ~50% of the CD. The RTO would destroy 98% of the CD fed to it.	of the startup plan of the Air Rich and N2 Rich Headers routed to the RTO. The AT will receive several streams from the Poly area.